

**Notice of Allowability**

Application No.

10/694,756

Examiner

DHIRU R PATEL

Applicant(s)

ONIZUKA ET AL.

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/29/03 and 6/29/04.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ The drawings filed on 29 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 0604
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 0604
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Dhiru R Patel*  
DHIRU R PATEL  
Primary Examiner  
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6/30/04

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**Part III DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Gerhard Thielman on 6/29/04.

2. The application has been amended as follows:

In the Claims:

Claim 5 (currently amended): A method for producing [a] said casing unit wherein [a] said power circuit section is adhered to [a] said circuit arrangement surface on [a] said heat radiation member to form [a] said circuit assembly and [a] said casing body is mounted on said heat radiation member, comprising the steps of:

forming [a] said casing unit according to Claim 1 by filling a heated molten synthetic resin into a mold; and removing [a] said shape retention member from said casing unit after cooling said casing unit.

Claim 6 (currently amended): A method for producing [a] said casing unit wherein [a] said power circuit section is adhered to [a] said circuit arrangement surface on [a] said heat radiation member to form [a] said circuit assembly and [a] said casing body is mounted on

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said heat radiation member, comprising the steps of : forming [a] said casing unit according to Claim 2 by filling a heated molten synthetic resin into a mold; and removing [a] said shape retention member from said casing unit after cooling said casing unit.

Claim 7 (currently amended): A method for producing [a] said casing unit wherein [a] said power circuit section is adhered to [a] said circuit arrangement surface on [a] said heat radiation member to form [a] said circuit assembly and [a] said casing body is mounted on said heat radiation member, comprising the steps of:

forming [a] said casing unit according to Claim 3 by filling a heated molten synthetic resin into a mold; and removing [a] said shape retention member from said casing unit after cooling said casing unit.

Claim 8 (currently amended): A method for producing [a] said circuit assembly wherein [a] said power circuit section having [a] said power circuit is adhered to [a] said heat radiation member and [a] said synthetic resin casing body is mounted on said heat radiation member to protect said power circuit section from the outside, comprising the steps of: producing said power circuit section, said heat radiation member, and [a] said casing unit according to Claim 1, respectively; and adhering said power circuit section to said heat radiation member and adhering said casing unit to said heat radiation member; in the first step of producing said power circuit section, forming said casing unit including said shape retention member by filling a heated molten synthetic resin into a mold, and removing said shape retention member from said casing unit after cooling said casing unit and before finishing the second step of adhering; in the second step of adhering, pressing

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said power circuit section onto said heat radiation member through said opening from which said shape retention member is removed, with an adhesive being interposed between said power circuit section and said heat radiation member, thereby enhancing a close contact between said power circuit section and said heat radiation member.

Claim 9 (currently amended): A method for producing [a] said circuit assembly wherein [a] said power circuit section having [a] said power circuit is adhered to [a] said heat radiation member and [a] said synthetic resin casing body is mounted on said heat radiation member to protect said power circuit section from the outside, comprising the steps of: producing said power circuit section, said heat radiation member, and [a] said casing unit according to Claim 2, respectively; and adhering said power circuit section to said heat radiation member and adhering said casing unit to said heat radiation member; in the first step of producing said power circuit section, forming said casing unit including said shape retention member by filling a heated molten synthetic resin into a mold, and removing said shape retention member from said casing unit after cooling said casing unit and before finishing the second step of adhering; in the second step of adhering, pressing said power circuit section onto said heat radiation member through said opening from which said shape retention member is removed, with an adhesive being interposed between said power circuit section and said heat radiation member, thereby enhancing a close contact between said power circuit section and said heat radiation member.

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Claim 10 (currently amended): A method for producing [a] said circuit assembly wherein [a] power circuit section having [a] said power circuit is adhered to a heat radiation member and [a] said synthetic resin casing body is mounted on said heat radiation member to protect said power circuit section from the outside, comprising the steps of: producing said power circuit section, said heat radiation member, and [a] said casing unit according to Claim 3, respectively; and adhering said power circuit section to said heat radiation member and adhering said casing unit to said heat radiation member; in the first step of producing said power circuit section, forming said casing unit including said shape retention member by filling a heated molten synthetic resin into a mold, and removing said shape retention member from said casing unit after cooling said casing unit and before finishing the second step of adhering; in the second step of adhering, pressing said power circuit section onto said heat radiation member through said opening from which said shape retention member is removed, with an adhesive being interposed between said power circuit section and said heat radiation member, thereby enhancing a close contact between said power circuit section and said heat radiation member.

Claim 11 (currently amended): A method for producing [a] said circuit assembly according to Claim 8, wherein a liquid waterproof resin is poured through said opening into said casing body after finishing said second step of adhering, and said waterproof resin is solidified to form a waterproof layer for sealing said power circuit section.

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***Allowable Subject Matter***

3. The following is a statement of reasons for the indication of allowable subject matter: The primary reasons for the indication of the allowability of claims 1-11 are the inclusion therein, in combination as currently claimed, of the limitation of a casing unit comprising: a shape retention member disposed across said opening for interconnecting a peripheral edge of said opening to each other at a plurality of positions; said casing body and shape retention member being made of a synthetic resin integrally with each other.

The previously listed limitations are neither disclosed nor taught by the prior art of record, alone or in combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Other prior art cited***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Murakoshi et al, Liu, Sumidda et al, Anzai et al, Iwata, Depp et al, and Boyd disclose a casing similar to applicant's claimed invention.

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**Contact information**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhiru Patel whose telephone number is 571-272-1983. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Dhiru Patel  
Primary Examiner  
Group Art Unit 2831  
July 7, 2004

*Dhiru R Patel*  
*Primary Examiner*  
*7/7/04.*